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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,040	07/29/2003	Franz Fadler	P03,0230	9280
26574	7590	01/14/2005	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			KAO, CHIH CHENG G	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,040

Applicant(s)

FADLER ET AL.

Examiner

Chih-Cheng Glen Kao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8,14 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-5,7,9-13 and 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/11/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “8” has been used to designate both the remote control console and the confirmation signal. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities, with locations indicated, as follows: (page 8, line 14, “that a reference an image”) and (page 11, line 3, “such as PC”, which should have the word - -a- - before “PC”). Appropriate correction is required.

Claim Objections

3. Claims 6-9, 13, 15, and 16 are objected to because of the following informalities, which appear to be minor draft errors including grammatical and lack of antecedent basis problems.

In the following format (location of objection; suggestion for correction), the following suggestions may obviate their respective objections: (claim 6, lines 1-2, "said slice level marking"; replacing "said" with - -the- -), (claim 7, line 4, "said reference image-to-image processing"; deleting both hyphens), (claim 7, line 5, "said examination subject"; deleting "examination"), (claim 8, line 8, "a processor for, using said marking in said reference image, setting a slice"; deleting "for" and inserting - -for- - before "setting"), (claim 9, lines 4-6, "said processor sets said slice level comprises using said marking position data and said camera position data to set said slice level"; deleting "comprises" and deleting the phrase "to set said slice level" after the phrase "camera position data"), (claim 13, lines 1-2, "said slice height positioner"; replacing "slice" with - -camera- -), (claim 15, line 6, "said processor"; inserting - -, for setting a slice level,- - after "processor" for antecedent basis to claim 8, line 8, not claim 15, line 4), (claim 16, line 5, "the a subject"; deleting "a"), and (claim 16, line 9, "a processor for using said marking in said reference image setting a slice"; deleting "for", inserting a comma before "using", inserting a comma after "reference image", and inserting - -for- - before "setting").

For purposes of examination, the claims have been treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogura et al. (US Patent 6502984).

Ogura et al. discloses a method and devices comprising an x-ray source (Fig. 29, #70) for irradiating a subject (Fig. 29, "S") in an examination direction to produce an x-ray exposure (Fig. 31), a camera (col. 16, line 64) for obtaining a reference image of an exterior of a subject (Fig. 36) along a line of sight (Fig. 36, dashed line in E1) transverse to an examination direction (Fig. 31), an indication unit (col. 21, line 33) indicating a selected slice level with a marking in said reference image (Fig. 36, dashed line in E1), and a processor, using said marking in said reference image, for setting a slice level when irradiating the subject with x-rays with an x-ray examination device (col. 17, lines 9-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6, 8, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hada (US Patent 5212717) in view of Nishihara et al. (US Patent 5039867).

6. Regarding claims 1, 8, and 16, Hada discloses a method and devices comprising an x-ray source (Fig. 1, #12) for irradiating a subject in an examination direction to produce an x-ray exposure (Fig. 1, #14 and 18), obtaining a reference image of an exterior of a subject along a line of sight transverse (col. 1, lines 32-34) to an examination direction (col. 1, lines 38-40), an indication unit indicating a selected slice level with a marking in said reference image (col. 1, lines 34-35), and a necessary processor, using said marking in said reference image, to set a slice level when irradiating the subject with x-rays with an x-ray examination device (col. 1, lines 35-41).

However, Hada does not specifically disclose a camera.

Nishihara et al. teaches a camera (col. 6, lines 48-51, and col. 11, lines 11-13).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to incorporate the method and devices of Hada with the camera of Nishihara et al., since one would be motivated to make such a modification to make it easier to send an image to a computer for further processing (Fig. 1, #16-19) as implied from Nishihara et al.

7. Regarding claims 6 and 14, Hada further discloses an input unit allowing manual designation of a slice level marking in the reference image (col. 5, lines 15-17).

Allowable Subject Matter

8. Claims 2-5, 7, 9-13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and all intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, prior art does not disclose or fairly suggest a method including wherein a marking has marking position data within a reference image associated therewith and wherein a camera has camera position data with reference to an x-ray examination device associated therewith, and wherein the step of setting a slice level comprises using said marking position data and said camera position data to set said slice level, in combination with all the limitations in the claim and base claim. Claims 3-5 contain allowable subject matter by virtue of their dependency.

Regarding claim 7, prior art does not disclose or fairly suggest a method including the steps of storing imaging parameters in a memory for a plurality of different types of images obtainable using an x-ray examination device, subjecting a reference image to image processing to determine a subject parameter of a subject, setting a slice level for one of the types of images, selected by an operator of the x-ray examination device, using said subject parameter and the imaging parameters stored in the memory for the selected type of image, visually displaying said reference image with said marking therein corresponding to the slice level that has been set, and allowing an operator of the x-ray examination device to approve the slice level designated by the marking in the displayed reference image and to fix the slice level for irradiating the subject with

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x-rays with said x-ray examination device to obtain the selected type of image, in combination with all the limitations in the claim and base claim.

Regarding claim 9, prior art does not disclose or fairly suggest a device including wherein a marking has marking position data within a reference image associated therewith and wherein a camera has camera position data with reference to an x-ray examination device associated therewith, and wherein a processor sets a slice level using said marking position data and said camera position data, in combination with all the limitations in the claim and base claim. Claims 10-13 contain allowable subject matter by virtue of their dependency.

Regarding claim 15, prior art does not disclose or fairly suggest a device including a memory for storing imaging parameters for a plurality of different types of images obtainable using an x-ray examination device, an image processor for subjecting a reference image to image processing to determine a subject parameter of an examination subject, said image processor setting a slice level for one of the types of images, selected by an operator of the x-ray examination device, a processor, for setting a slice level, setting a slice level for a selected one of the types of images using said subject parameter and the imaging parameters stored in the memory for the selected type of image, a display for visually displaying said reference image with said marking therein corresponding to the slice level that has been set, and an input unit allowing an operator of the x-ray examination device to approve the slice level designated by the marking in the displayed reference image and to fix the slice level for irradiating the subject with x-rays with said x-ray examination device to obtain the selected type of image, in combination with all the limitations in the claim and base claim.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 3916192 discloses an organ program (Title and Abstract) as related to claims 7 and 15. US Patents 4442533 and 6005909 disclose marking means for a slice level (Fig. 2, #40, and Fig. 1, #17, respectively). US Patent 4262306 discloses a camera on the side (Fig. 1, #10 and Fig. 3).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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